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***Lichenia* and Climate Crisis: Feeling Dark Rhythms in the Longue Durée**

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EXTENDED ABSTRACT

This abstract critically reads a real-time strategy game as a historiographic model with a ‘dark ecological’ (Morton, 2016) perspective on both the deep time and speculative future of the climate crisis. In contrast to the competitive, growth-oriented and nationalist framing of player factions in series such as *Age of Empires* and *Civilization*, the environmental strategy game *Lichenia* (Molleindustria, 2019) addresses climate-crisis history as a post-zero-sum game in which the player manages the conflicting demands of a global biosphere containing both human and non-human actants (Latour, 1993) rather than competing empires or characters. Here I propose an analysis of the environmental strategy game *Lichenia* in relation to the Annales School of historiography, which emphasizes broadscale international and ecological history and the concept of ‘longue durée’ (history read in terms of long-term dynamics). While recent endeavours have explored the pedagogic function of historically themed games (Kee & Compeau, 2014), and reflectioned on both AAA narrative-driven and traditional strategy games as historical representations (Chapman, 2016; Kapell & Elliott, 2013) there is much work still to be done on games as embodiments of the theory and philosophy of history, particularly in the Indie space. *Lichenia* offers the player a highly affective looping experience of development and re-wilding, flood and drought, growth and death, which I argue contrasts the linear progress narratives of conventional strategy games with dark existential rhythms that challenge the primacy of humanity and expose the untamable complexity of the climate in sympathy with Timothy Morton’s *Dark Ecology* (2016) and Object-oriented ontology (Bogost, 2012; Harman, 2018).

Molleindustria explicitly aims to complicate the colonialist fantasy of an empty or uninhabited landscape preceding player intervention, prevalent in the work of Will Wright and Sid Meier (Molleindustria, 2019). Both its asset pipeline and UI signal the repeated interrelation of the human and non-human, with neural-network generated tile sprites and descriptions of the land as uncanny plastic stratigraphy and concrete shards in a post-apocalypse [Fig. 1]. However, rather than explore *Lichenia* in the context of changing historical conceptions of the future/apocalypse, as in Joseph A. November’s work on *Fallout* (2013:297-309), this programme of research intends to critically reflect on *Lichenia*’s articulation of repeated structures of deep time (Rudwick, 2014)

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and speculative futures in relation to contemporary planetary concerns which look beyond the finality and linearity of the apocalyptic. As a critical response to *Age of Empires*, *Sim City* and *Civilization*, *Lichenia* frames civilisation as a perpetual balancing act of environmental stimulus and response through a procedural rhetoric (Bogost, 2008) that moves the player affectively from anxiety to acceptance. Floods and storms erode player-built infrastructure, just as plant life can process and replenish devastation. Rain, fire, foliage and urban development are equally weighted materials here which inflect each other in complex and opaque interactions, and while the player might aim to foster a dynamic equilibrium, the world's impermanence reinforces the fragility, mutability and ineffability of both architecture and ecosystems at large enough temporal scales.



Figure 1: Molleindustria. (2019) *Lichenia*. Molleindustria [Author's screenshot, 22/11/19]

Diverging from Levy and Dawson's model of pedagogic history games as visual archives of vanishing local environments and memories (2014:66-84), *Lichenia* represents global ecosystems in flux through mechanics. Conversely, while Adam Chapman's (2013:61-70, 2016:) productive work demonstrates the power of systems to represent historical affordances systemically, his approach foregrounds player freedom where *Lichenia* engages in a radical restriction of player power – limiting and decentring the player in line with Bogost's work on Thing Theory and the productive effects of limit conditions (2012, 2016). In contrast to these American models of 'games as history,' therefore, I argue that we should instead turn to a different historiographic tradition in order to articulate *Lichenia*'s systems-based approach to climate history.

Through game dynamics, *Lichenia* plays with and against different generations of Annales School historiography, as well as cultural theorists on its periphery, from Fernand Braudel's notion of climate as a slow but omnipresent historical force ('l'histoire quasi immobile', Braudel, 1949) to Henri Lefebvre's late interest in urban repetitions and returns in his 'Rhythmanalysis' (1992). In thinking and acting through both the quotidian social rhythms of construction and detritus, as well as the long term environmental tides of which they are a part, *Lichenia*'s dark-rhythmic game dynamics not only complicates ontological categories of natural/artificial, but also the temporal categories of deep/recent time - 'longue durée' and 'histoire événementielle.'

In doing so, it manifests the truly global problematics of a vast historical process in the Anthropocene, which Morton has more precisely termed unsustainable resource extractive ‘agrilogistics’ (2016:38). In its magnitude and returns, *Lichenia* enacts some of the scale and horror of this civilizational ‘hyperobject’ (Morton, 2013), as elaborated in the context of climate crisis by Morton (2016), in which humanity has struggled counter-productively for millennia to flatten the vast and irrational feedback loops of the biosphere. Through its dynamics, *Lichenia* fosters ecological awareness (‘ecognosis’) and transitions the player rapidly from dark depression through the dark uncanny and into the dark sweetness of play in which we come to terms with the dizzying ungraspable complexity of looping coexistence (Morton, 2016). This paper argues that through *Lichenia*’s repetitions, returns and frustrations it resists the smooth, linear agrilogistics of *Civilization* with a dark counter-rhythm of the ‘longue durée,’ reflecting on the tangled processes and histories of the climate crisis. In this fluid sandbox the player immerses themselves in the structural ebb and flow of deep time, experiencing global historical forces as looping affective rhythms of a human-non-human ecosystem.

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